

<b>Notice of Allowability</b>	Application No.	Applicant(s)	
	09/902,274	KONG, JAMES X.	
	Examiner	Art Unit	
	Jean M Corrielus	2162	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the examiner's amendment December 24, 2004.
2. ☒ The allowed claim(s) is/are 1,4-7,9,12,14 and 17-21 renumbered as 1-13.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

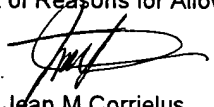
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
|---|---|

  
 Jean M Corrielus  
 Primary Examiner  
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**DETAILED ACTION**

1. This office action is in response to the amendment filed on July 2, 2004, in which claims 1-2, 4-9 and 12-22 are presented for further examination.

***PROPOSED EXAMINER'S AMENDMENT***

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Kent A. Lembke (Reg. no. 44,866), on December 3, 2004.

The application has been amended as follows:

**In the claim:**

Please replace claims 1, 9, 12 and 14 with the following:

1. A database implemented method of processing a query in an object oriented programming environment, comprising:

using a base class to create a condition filter in a standard query language statement, the condition filter defining properties to be satisfied by a result of a query, wherein said condition filter includes parameters and none of the parameters is null, wherein a portion of data values in the condition filter are each replaced by a placeholder and a corresponding data value list for the placeholders is created using a tree data structure to store condition filter, and wherein the placeholder is a question mark character;

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precompiling the standard query language statement including the condition filter:  
storing the precompiled standard query language statement;  
receiving the query from an application including values for each of the data values represented by placeholders; and  
using the precompiled standard language statement including the received values from the application to request the result of the query from said database, wherein the precompiled query language statement is executed multiple times without being recompiled.

9. A database implemented method of processing a query in an object oriented programming environment, comprising:

using an application programming interface (API) to create a standard query language (SQL) WHERE clause statement in the SQL statement and to pass the SQL WHERE clause statement to a persistent object framework (POF), wherein the API uses a tree data structure for storing conditions wherein data values of unknown parameters in the SQL WHERE clause statement are replaced with a question mark character and a corresponding data value list is created;

receiving a query from said application programming interface; and  
sending the SQL WHERE clause statement to the database, wherein the SQL WHERE clause statement includes a condition filter and uses a PreparedStatement object that uses the tree data structure to set values of the unknown parameters unknown, and wherein the SQL WHERE clause statement is executed multiple times without being recompiled.

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12. An application programming interface (API) for a database query system in an object oriented programming environment, the application programming interface adapted to effect the steps comprising:

creating a condition filter for a standard query language (SQL) WHERE clause statement, the condition filter defining properties to be satisfied by a result of a query, wherein a portion of data values in the condition filter are each replaced by a placeholder and a corresponding data value list for the placeholders is created using a tree data structure to store condition, wherein said condition filter includes parameters and none of the parameters is null, and wherein data values in the condition filter for a SQL WHERE clause statement are replaced with a question mark character and a corresponding data value list is created; and

passing the condition filter to a persistent object framework, wherein the SQL WHERE clause statement uses a PreparedStatement object to request a query that uses the tree data structure to set values of the unknown parameters unknown, and wherein the query is executed multiple times without being recompiled.

14. A computer program product comprising a computer useable medium having computer readable code embodied therein for a database query system in an object oriented programming environment, the computer program product adapted to effect the steps comprising:

making a connection with a database;  
creating a condition filter in a standard query language statement, the condition filter defining properties to be satisfied by a result of a query, and the condition filter using an object to execute a precompiled query language statement, wherein a portion of data values in the condition filter

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are each replaced by a placeholder and a corresponding data value list for the placeholders is created using a tree data structure to store condition, wherein the query language statement is executed multiple times without being recompiled, and wherein the tree data structure is used for storing conditions, the tree data structure being accessible by the executing object for the condition filter to set the parameters with the parameter values; and

using the precompiled standard query language statement to request the result of the query from the database, wherein the precompiled standard query comprises the step of responding to an access request from an application, the access request including values of parameters implemented in the standard query language statement by the object and wherein said data value list being used to implement the parameter values from the application.

Please cancel claims 2, 8, 13, 15, 16 and 22 without prejudice.

***Allowable Subject Matter***

3. Claims 1, 4-7, 9, 12, 14 and 17-21 are allowable in light of the prior art made of record and in light of the applicants' arguments.

***Reasons for Indicating Allowable Subject Matter***

4. The following is an examiner's statement of reasons for allowance: Upon searching a variety of databases, the examiner respectfully submits that creating a condition filter in a standard query language statement, the condition filter defining properties to be satisfied by a result of a query, and the condition filter using an object to execute a precompiled query

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language statement, wherein a portion of data values in the condition filter are each replaced by a placeholder and a corresponding data value list for the placeholders is created using a tree data structure to store condition, wherein the query language statement is executed multiple times without being recompiled, and wherein the tree data structure is used for storing conditions, the tree data structure being accessible by the executing object for the condition filter to set the parameters with the parameter values” in claims 1, 9, 12 and 14, in conjunction with all other limitations of the dependent and independent claims are not taught nor suggested by the prior art of record (PTO-892 and PTO-1449). Therefore, all pending claims 1, 4-7, 9, 12, 14 and 17-21 is hereby allowed.

5. Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings in response to this Office action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance”.

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*Conclusion*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean M. Corrielus whose telephone number is (571) 272-4032. The examiner can normally be reached on Monday - Friday (8:00am - 7:30 pm).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (703) 305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jean M. Corrielus

Patent Examiner

December 24, 2004

  
JEAN M. CORRIELUS  
PRIMARY EXAMINER